



Digital platform for circular economy in cross-sectorial sustainable value networks



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 873111

Open call type “B”: Pilots in new sectors using the DigiPrime digital platform, services, and basic data transfer functionalities

Annex 1: Open Call text

Version 3.1

© Copyright by the DigiPrime Consortium

1.1 DigiPrime overview

DigiPrime is an H2020 project (IA) financed under the call DT-ICT-07-2018-2019, aiming at the development of a new concept of Circular Economy digital platform overcoming current information asymmetry among value-chain stakeholders, to unlock new circular business models based on the data-enhanced recovery and re-use of functions and materials from high value-added post-use products with a cross-sectorial approach. The project is creating and operate a federated model of digital platforms for cross-sector business in the Circular Economy. Nodes of the federation will offer interoperable functions and data, that can be accessed by other nodes, combined with local data and services, that are not exposed outside; connectors and open interfaces enable easy integration of new services, provided by third parties, that are not made accessible outside. Specific attention is devoted to creating trustable data sharing mechanisms, preserving the confidentiality of business-critical data.

The DigiPrime services cover:

- i) the cross-sector value-Chains dimension (De- and remanufacturing oriented product information management, product co-creation, LCA-LCC for eco-design, demand-supply matching, sustainable value network and reverse logistics barriers identification and legislation support, etc.),
- ii) the operational dimension (prediction of product conditions, de-and remanufacturing decision support system, demand and supply forecasting, circular production planning and control, material testing and certification, etc).

DigiPrime, will be validated through 6 cross-sectorial pilots covering different sectors:

Pilot 1: Li-Ion Batteries-*Involved sectors: automotive, renewable energy, recycling and raw materials.*

Pilot 2: Composites and Techno-polymers - *Involved sectors: automotive, construction, renewable energy, design products.*

Pilot 3: Mechatronics and Electronics - *Involved sectors: Automotive; machines and engines; raw materials*

Pilot 4: Textile Parts - *Involved sectors: automotive, textiles, build environment, design products*

Pilot 5: Cross-regional value-chain identification and open innovation.

Pilot 6: Circular innovation hubs integration.

A further validation is foreseen through additional pilots in new sectors, funded through an Open Call mechanism.

Financial support to third parties is foreseen for the incorporation of SMEs developing prototype applications on top of digital manufacturing platforms.

DigiPrime will provide financial support for a total of 2 million Euro to SMEs that will engage in the following type of activities:

- **proposals expanding the DigiPrime already existing Pilots to connect with sectors/pilots that provide or use materials, as well as components in/from the DigiPrime pilots;**
- **proposals investigating new pilots focusing on the same components and materials of the DigiPrime already existing pilots, but exploring novel and different application contexts;**
- **proposals focusing on totally new pilots.**

1.2 DigiPrime architecture

The overall architecture level of the DigiPrime platform includes:

- A Multi-node federation structure, replicable on different existing and additional sectorial platform instances and with easy access for users, which will support the future systematic creation of cross-sectorial circular value-chains.
- A Semantic data infrastructure based on ontological repositories and semantic search, able to manage and standardize the Babel of information coming from heterogeneous nodes.
- A Data Policy Framework to ensure privacy, security, authentication, and authorization policies to any information shared among registered users.

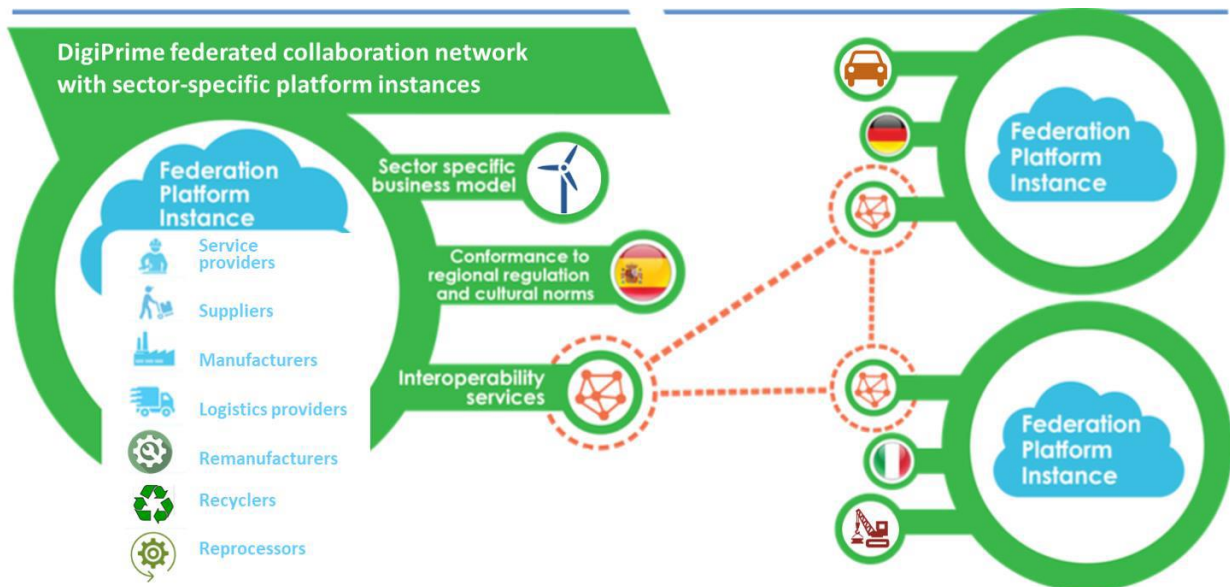


Figure: DigiPrime Federation-based architecture

The DigiPrime architecture distinguishes among:

Value-chain Oriented Services (VOS): horizontal services that can be made accessible to other nodes of the federation, to offer access to information of interest across sectors, and

Operational Services (OS): vertical services within a node, used by companies internally, mainly to support decision making aiming at improving the effectiveness and profitability of the circular business processes.

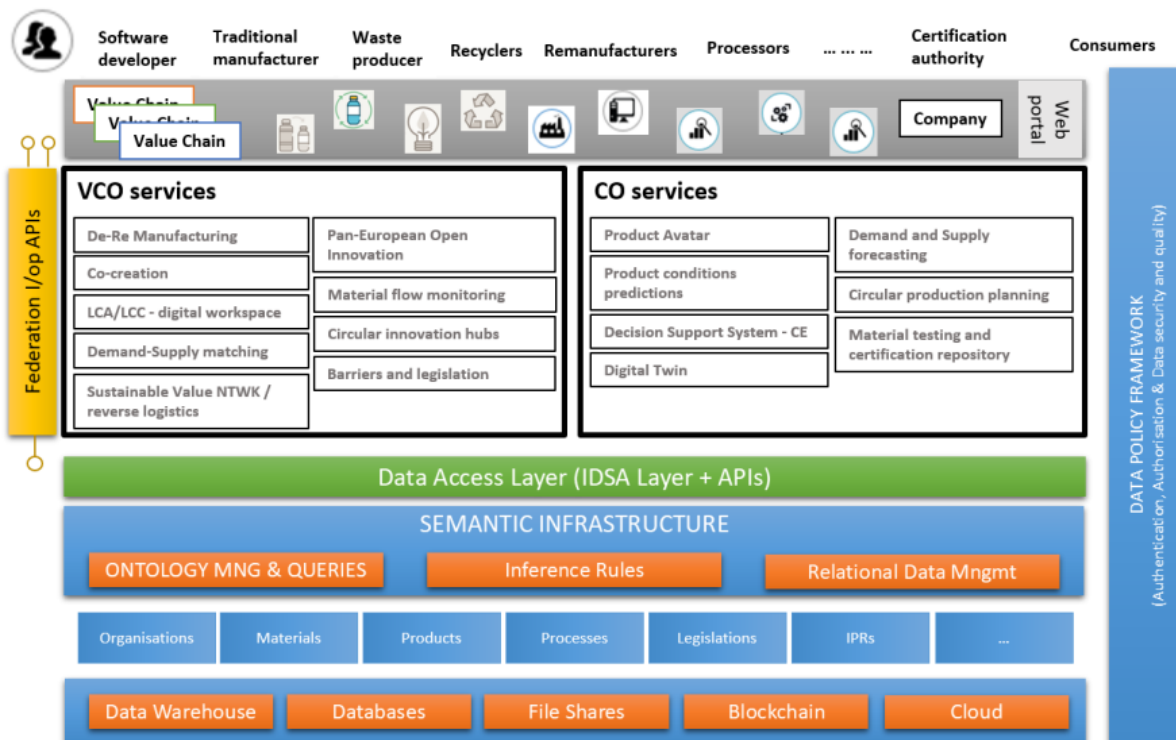


Figure : DigiPrime Platform node architecture

1.3 DigiPrime services

1.3.1 Value Chain oriented services (horizontal services)

1. De- and remanufacturing oriented product information management.
2. Product co-creation.
3. LCA-LCC for eco-design
4. Demand-supply matching.
5. Sustainable value network and reverse logistics configuration.
6. Identification of cross-regional value-chains through open innovation
7. Material flow monitoring and aggregated system oriented KPIs
8. Circular Innovation hubs integration.
9. Barriers identification and legislation support.

1.3.2 Operational services (vertical services)

1. Product in-use phase monitoring and data acquisition
2. Artificial Intelligence for prediction of product conditions.
3. De-and remanufacturing decision support system.
4. Digital twin for de- and remanufacturing adaptation to product conditions.
5. Demand and supply forecasting.
6. Circular production planning and control.
7. Material testing and certification.

A description of the above services is reported in the technical annex (Annex 9) to this call

1.4 DigiPrime Open Call B

DigiPrime Open Call B will offer financial support to sub-projects, with a duration of six months, able to demonstrate their contribution to the overall scope of the DigiPrime platform by testing the developed services in a detailed use-case, value-chain, business case or sector. Sub-projects are expected to provide enough data to validate DigiPrime services in a pertinent industrial and business environment.

In detail, the DigiPrime Open Call B will finance:

- proposals expanding the DigiPrime already existing Pilots to connect with sectors/pilots that provide or use materials, as well as components in/from the DigiPrime pilots;
- proposals investigating new pilots focusing on the same components and materials of the DigiPrime already existing pilots, but exploring novel and different application contexts;
- proposals focusing on totally new pilots.

Applicants are required to list 3 services of the DigiPrime platform that they would like to test, knowing that the DigiPrime Consortium reserves the possibility to choose other services available in the platform.

1.5 Eligibility rules

The open call is addressed and limited to SMEs, as defined in the EU law: (EC recommendation 2003/361/EC as published in the Official Journal of the European Union L 124, p. 36 of 20 May 2003)¹, also in form of small consortia of SMEs. All organizations (SMEs) eligible for Horizon 2020 will be eligible to submit proposals for the open calls, except for the consortium's partners and other parties that may have conflicts of interest.

Other entities not eligible for funding under Horizon 2020 can also apply as consortium partners but they must bear their project costs. Sub-contracting is admitted

1.6 Selection criteria

The criteria for selecting the sub-projects proposal are based on:

- The Innovation of the application (in terms of its scientific and technological excellence) to be implemented/integrated in the DigiPrime platform. (Weight 30%)
- Impact on the DigiPrime ecosystem and contribution to meeting DigiPrime's goals and objectives, described in the previous section 1.5 and complying with the KPIs described in section 2.5.2 of the "Guidelines for Applicants" (Annex 2). (Weight 40%)
- The ability of the applicants to implement the proposed sub-projects, based on the implementation plan, assigned team, company profile, background infrastructures, and previous experience. (Weight 30%)

1.7 Selection process

Three external evaluators will be appointed for the evaluation of each proposal. Each evaluator will conduct a single review, then the evaluation results will be cross-examined by all the evaluators who will finally rank the proposals according to the selection criteria described in section 2.2.

The final approval of the selected SMEs to receive financing will be made by the coordinator, considering the best fit to the specific project objectives and possible conflict of interest issues.

1.8 Funding scheme

Each sub-project selected via the Open Calls will receive the funding on a lump sum scheme, based on estimations of the grant recipient(s) included in the application form. **Beneficiaries will be eligible to receive only the 70% of the sub-project costs as financial support.**

In the Open call type B the maximum amount of the financial support for proposals having a single applicant is € 100.000 (*Euro one hundred thousand*); proposals submitted by a consortium of two or more applicants may receive a financial support up to € 200.000 (*Euro two hundred thousand*).

In line with the good practices for organizing open calls under the FSTP scheme and in order to avoid the same companies accumulating FSTP support, a 100,000 EUR limit to any third party is considered as a maximum threshold in the total of the open calls

The financial support will be given upon presentation of specific deliverables by the selected beneficiaries and subject to the achievement of certain milestones. In case of consortia, applicants are requested to indicate the division of a lump sum between beneficiaries in the application form. The grant will be paid based on the results of the review meetings evaluating progresses of the implementation during the sub-project lifetime; payments will be executed as follows:

- 25% of the total financial support as pre-financing, upon selection, approval of the proposal and following the signature of the Mini-Grant Agreement.
- 40% of the total financial support upon interim validation of results and deliverables by the DigiPrime “Mentors” that will be selected among the DigiPrime members.
- 35% of the total financial support at the end of the sub-project, upon validation of results and deliverables by the DigiPrime “Mentors”.

All payments will be made by bank transfer from the DigiPrime Coordinator.

1.9 Financial audits

The European Commission may, at any time during the implementation of the DigiPrime project and up to five years after the end of the sub-project, arrange for financial audits to be carried out, by external auditors, or by the EC services themselves including the European Anti-Fraud Office (OLAF) or on-the-spot checks and inspections in accordance with Council Regulation (Euratom, EC) No 2185/96 of 11 November 1996. Such audits and checks may cover financial, systemic, and other aspects (such as accounting and management principles) relating to the proper execution of the Mini-Grant agreement. Each member of the sub-project consortium shall make available directly to the European Commission all detailed information and data that may be requested by a European Commission authorized representative.

1.10 Intellectual Property Rights

The proposals submitted should be solely based on original works by the applicants and their foreseen developments are free from third-party rights, otherwise such rights must be clearly stated.

All IPRs created by the applicants via the DigiPrime funding will remain to the applicants, who will be the unique owners of the technologies created within the framework of their sub-projects. The applicants commit to exploit the results at least via DigiPrime platform.

1.11 Communication, visibility, and liability

Any communication or publication by the funded applicants shall clearly indicate that the project has received funding from the European Union and DigiPrime project displaying the EU logo and the DigiPrime logo on all printed and digital material, including websites and press releases.

Parts of the projects selected for funding (including the publishable summary of the proposal) will be used for DigiPrime dissemination purposes.

The sub-project consortium shall, throughout the duration of the Project, take appropriate measures to engage with the public and the media about the project and to highlight the financial support of the European Union. Any publicity made by the sub-project consortium in respect of the sub-project, in whatever form and on or by whatever medium, must specify a) that it is funded by the European Union via the DigiPrime project and b) that it reflects only the author's views and that the European Union and DigiPrime are not liable for any use that may be made of the information contained therein.

1.12 Announcement of Open call "Type B"

Call Type	DigiPrime Open Call "B"
Call Objective	Call for: <ul style="list-style-type: none"> proposals expanding the DigiPrime already existing Pilots to connect with sectors/pilots that provide or use materials, as well as components in/from the DigiPrime pilots. proposals investigating new pilots focusing on the same components and materials of the DigiPrime already existing pilots but exploring novel and different application contexts. proposals focusing on totally new pilots.
Full name of the EU funded project	DigiPrime - Digital platform for circular economy in cross-sectorial sustainable value networks
Grant Agreement number:	873111
Call publication date	01 November 2022
Call deadline	10 January 2023
Expected duration of participation	6 Months
Total EU funds available	EUR 1.200.000
Eligibility criteria	SMEs, as defined in the EU law: (EC recommendation 2003/361/EC), also in form of small consortia of SMEs, complying with the Horizon 2020 eligibility criteria
Financing rate	70%
Maximum financing amount	Up to EUR 100.000 for proposals submitted by a single applicant. Up to EUR 200.000 for proposals submitted by a Consortium composed by two or more applicants. A 100,000 EUR limit to any applicant is considered as a maximum threshold in the total of the open calls.
Submission and Evaluation process	Submissions will be done through the DigiPrime web site. Evaluation process involves the following stages: <ol style="list-style-type: none"> 1. Eligibility criteria evaluation 2. Evaluation by 3 external evaluators. Innovation, Impact and implementation will be used as evaluation criteria. 3. A consensus meeting to finalize evaluation reports
Further Information	Details available at www.digiprime.eu/open-calls

1.13 Additional information

All the information is contained in the following annexes.

- **Annex 1: Open Call Text** (this document).
- **Annex 2: Guidelines for Applicants**, which sets out the guidelines for participation.
- **Annex 3: Application Form**, with questions that need to be addressed by applicants.
- **Annex 4: Proposal Supplement**, a document providing information on proposal schedule, timing, and other details.
- **Annex 5: Sub-grant Agreement Template**, which provides a template of the sub-grant agreement that the successful applicants will be requested to sign.
- **Annex 6: SME Declaration**, which evaluates the status of the SMEs participating at the open call.
- **Annex 7: Declaration of Honour**, which declares that all conditions of the open call are accepted by an SME legal representative.
- **Annex 8: Bank Account Information**, which collects information on the applicant's bank account where the payments will be transferred to
- **Annex 9: Technical Annex**, with technical information about the platform architecture, the interfaces and data models that will be provided to third parties for the development of new services.
- **Annex 10: Guidelines for the evaluators**, with information on the whole evaluation process, including the technical part.

Contacts: opencallsinfo@digiprime.eu